

# Work Order ID 105073

**\*105073\***

Page 1

July-23-13 1:06:18 PM

Item ID: D4634-045 Accept **\*N900040100\*** Setup Start **\*NS1\***  
 Revision ID: Stop **\*NS2\***  
 Item Name: Aft, Center Ceiling Panel Assembly  
 Start Date: 7/23/13 Start Qty: 1.00 **\*1\*** Cust Item ID:  
 Required Date: 7/23/13 Req'd Qty: 1.00 **\*1\*** Customer:  
 Reference:

Approvals: Process Plan: MLJ Date: 1307-24 Tooling: \_\_\_\_\_ Date: \_\_\_\_\_  
 QC: \_\_\_\_\_ Date: \_\_\_\_\_ SPC (Y/N): \_\_\_\_\_ Date: \_\_\_\_\_  
 Run Start **\*NR1\***  
 Stop **\*NR2\***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
<b>Draw Nbr</b>	<b>Revision Nbr</b>								
D4634	C								
100		0.00							DAS 07 2-89
<b>*100*</b>									
HandThermo	Memo	0.00							
Hand Finishing Thermoforming	Pick Kit								13/09/16
110		0.00							DAS 07 2-89
<b>*110*</b>									
Small Fab	Memo	0.00							
Small Fab	1- Assemble as per Dwg D4634-045								13/09/18
	2- install No Smoking & seat belt symbols								
	3- Install led lights								
	4- Install Air valves								
	5-Install Wiring Harness								
	5-Install wiring harness								

NCR: Yes / No

**WORK ORDER NON-CONFORMANCE / UPDATE**

DQA: \_\_\_\_\_ Date: \_\_\_\_\_

QA Closed: \_\_\_\_\_ Date: \_\_\_\_\_

Work Order: _____  Part No. _____  NCR No. _____				<b>DISPOSITION</b>  Rework <input type="checkbox"/> Scrap <input type="checkbox"/> Use-as-is <input type="checkbox"/> Work Order Update <input type="checkbox"/>		<b>AGAINST DEPARTMENT/PROCESS</b>  <div style="display: flex; justify-content: space-between;"> <div>           Skid-tube <input type="checkbox"/>            Machining <input type="checkbox"/>            Thermoforming <input type="checkbox"/>            Large Fab <input type="checkbox"/> </div> <div>           Crosstube <input type="checkbox"/>            Small Fab <input type="checkbox"/>            Finishing <input type="checkbox"/>            Composite <input type="checkbox"/> </div> <div>           Water Jet <input type="checkbox"/>            Prod. Eng. Coord. <input type="checkbox"/>            Rec/Store/Packaging <input type="checkbox"/>            Supplier <input type="checkbox"/> </div> <div>           Engineering <input type="checkbox"/>            Quality <input type="checkbox"/>            Other <input type="checkbox"/> </div> </div>					
Root Cause	Date	Step	Qty	Description of work order update or Non-conformance	Initial Chief Eng	Action Description	Sign & Date	Verification	QC Inspector		
Doc/Data <input type="checkbox"/>											
Equip/Tooling <input type="checkbox"/>											
Operator <input type="checkbox"/>											
Material <input type="checkbox"/>											
Setup <input type="checkbox"/>											
Other <input type="checkbox"/>											
Process <input type="checkbox"/>											
Supplier <input type="checkbox"/>											
Training <input type="checkbox"/>											
Unapproved <input type="checkbox"/>											

FAULT CATEGORY											
<b>Landing Gear</b>			<b>General</b>			<b>Grain</b>			<b>Other</b>		
<input type="checkbox"/>	Bending	<input type="checkbox"/>	Bend	<input type="checkbox"/>	Grain	<input type="checkbox"/>	Ovalized	<input type="checkbox"/>	Pressure/Forced		
<input type="checkbox"/>	Centre Not Concentric to O/S	<input type="checkbox"/>	BOM/Route	<input type="checkbox"/>	Hardware	<input type="checkbox"/>	Over/Under tolerance	<input type="checkbox"/>	Temperature/Cure		
<input type="checkbox"/>	Cracks	<input type="checkbox"/>	Broken/Damaged	<input type="checkbox"/>	Inspection Incomplete	<input type="checkbox"/>	Part Incorrect	<input type="checkbox"/>	Weld		
<input type="checkbox"/>	Crushed/Crimped	<input type="checkbox"/>	Burrs	<input type="checkbox"/>	Instructions Incomplete/Unclear	<input type="checkbox"/>	Part Lost/Missing	<input type="checkbox"/>	Wrong Stock Pulled		
<input type="checkbox"/>	Cuffs	<input type="checkbox"/>	Contamination	<input type="checkbox"/>	Maintenance	<input type="checkbox"/>	Part Moved	<input type="checkbox"/>			
<input type="checkbox"/>	Heat Treat	<input type="checkbox"/>	Countersink	<input type="checkbox"/>	Mislabeled	<input type="checkbox"/>	Positioned Wrong	<input type="checkbox"/>			
<input type="checkbox"/>	Inspection Strip in Tube	<input type="checkbox"/>	Cut Too Short	<input type="checkbox"/>	Misread	<input type="checkbox"/>	Power Loss/Surge	<input type="checkbox"/>	Other		
<input type="checkbox"/>	Ripples in Bend	<input type="checkbox"/>	Drill Holes	<input type="checkbox"/>	Offset						
<input type="checkbox"/>	Torque Waves in Extrusion	<input type="checkbox"/>	Drawing	<input type="checkbox"/>	Out of Calibration						
<input type="checkbox"/>	Turning Sequence	<input type="checkbox"/>	Finish	<input type="checkbox"/>	Out of Sequence						
<input type="checkbox"/>	Wave/Twist in Tube	<input type="checkbox"/>	Folio	<input type="checkbox"/>	Outside Dimensions						

# Work Order ID 105073

\*105073\*

Page 2

July-23-13 1:06:18 PM

Item ID: D4634-045 Accept \*N900040100\* Setup Start \*NS1\*  
Revision ID: Stop \*NS2\*  
Item Name: Aft, Center Ceiling Panel Assembly  
Start Date: 7/23/13 Start Qty: 1.00 \*1\* Cust Item ID:  
Required Date: 7/23/13 Req'd Qty: 1.00 \*1\* Customer:  
Reference:

Approvals: Process Plan: \_\_\_\_\_ Date: \_\_\_\_\_ Tooling: \_\_\_\_\_ Date: \_\_\_\_\_ Run Start \*NR1\*  
QC: \_\_\_\_\_ Date: \_\_\_\_\_ SPC (Y/N): \_\_\_\_\_ Date: \_\_\_\_\_ Stop \*NR2\*

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
120 *120* QC Quality Control	QC6- Inspect dimensions to drawing  Memo	0.00 DAS 16 9-89		13/09/19					
130 *130* Packaging Packaging	Identify as per dwg & Stock Location: _____  Memo	0.00 0.00							13/9/20
140 *140* QC Quality Control	QC21- Final Inspection - Work Order Release  Memo	0.00 0.00							13/9/20

MF  
13-9-20

NCR: Yes / No

**WORK ORDER NON-CONFORMANCE / UPDATE**

DQA: \_\_\_\_\_ Date: \_\_\_\_\_

QA Closed: \_\_\_\_\_ Date: \_\_\_\_\_

Work Order: _____  Part No. _____  NCR No. _____				<b>DISPOSITION</b>  Rework <input type="checkbox"/> Scrap <input type="checkbox"/> Use-as-is <input type="checkbox"/> Work Order Update <input type="checkbox"/>		<b>AGAINST DEPARTMENT/PROCESS</b>  <div style="display: flex; justify-content: space-between;"> <div>           Skid-tube <input type="checkbox"/>            Machining <input type="checkbox"/>            Thermoforming <input type="checkbox"/>            Large Fab <input type="checkbox"/> </div> <div>           Crosstube <input type="checkbox"/>            Small Fab <input type="checkbox"/>            Finishing <input type="checkbox"/>            Composite <input type="checkbox"/> </div> <div>           Water Jet <input type="checkbox"/>            Prod. Eng. Coord. <input type="checkbox"/>            Rec/Store/Packaging <input type="checkbox"/>            Supplier <input type="checkbox"/> </div> <div>           Engineering <input type="checkbox"/>            Quality <input type="checkbox"/>            Other <input type="checkbox"/> </div> </div>					
<b>Root Cause</b>	<b>Date</b>	<b>Step</b>	<b>Qty</b>	<b>Description of work order update or Non-conformance</b>	<b>Initial Chief Eng</b>	<b>Action Description</b>	<b>Sign &amp; Date</b>	<b>Verification</b>	<b>QC Inspector</b>		
Doc/Data <input type="checkbox"/>											
Equip/Tooling <input type="checkbox"/>											
Operator <input type="checkbox"/>											
Material <input type="checkbox"/>											
Setup <input type="checkbox"/>											
Other <input type="checkbox"/>											
Process <input type="checkbox"/>											
Supplier <input type="checkbox"/>											
Training <input type="checkbox"/>											
Unapproved <input type="checkbox"/>											

FAULT CATEGORY									
<b>Landing Gear</b>			<b>General</b>						
<input type="checkbox"/> Bending	<input type="checkbox"/> Bend	<input type="checkbox"/> Grain	<input type="checkbox"/> Ovalized	<input type="checkbox"/> Pressure/Forced					
<input type="checkbox"/> Centre Not Concentric to O/S	<input type="checkbox"/> BOM/Route	<input type="checkbox"/> Hardware	<input type="checkbox"/> Over/Under tolerance	<input type="checkbox"/> Temperature/Cure					
<input type="checkbox"/> Cracks	<input type="checkbox"/> Broken/Damaged	<input type="checkbox"/> Inspection Incomplete	<input type="checkbox"/> Part Incorrect	<input type="checkbox"/> Weld					
<input type="checkbox"/> Crushed/Crimped	<input type="checkbox"/> Burrs	<input type="checkbox"/> Instructions Incomplete/Unclear	<input type="checkbox"/> Part Lost/Missing	<input type="checkbox"/> Wrong Stock Pulled					
<input type="checkbox"/> Cuffs	<input type="checkbox"/> Contamination	<input type="checkbox"/> Maintenance	<input type="checkbox"/> Part Moved						
<input type="checkbox"/> Heat Treat	<input type="checkbox"/> Countersink	<input type="checkbox"/> Mislabeled	<input type="checkbox"/> Positioned Wrong						
<input type="checkbox"/> Inspection Strip in Tube	<input type="checkbox"/> Cut Too Short	<input type="checkbox"/> Misread	<input type="checkbox"/> Power Loss/Surge	<input type="checkbox"/> Other					
<input type="checkbox"/> Ripples in Bend	<input type="checkbox"/> Drill Holes	<input type="checkbox"/> Offset							
<input type="checkbox"/> Torque Waves in Extrusion	<input type="checkbox"/> Drawing	<input type="checkbox"/> Out of Calibration							
<input type="checkbox"/> Turning Sequence	<input type="checkbox"/> Finish	<input type="checkbox"/> Out of Sequence							
<input type="checkbox"/> Wave/Twist in Tube	<input type="checkbox"/> Folio	<input type="checkbox"/> Outside Dimensions							

# Picklist Print

July-23-13 1:06:17 PM

Page 1

Work Order ID: 105073

Parent Item: D4634-045

Parent Item Name: Aft, Center Ceiling Panel Assembly

Start Date: 7/23/13

Required Date: 7/23/13

Start Qty: 1.00

Required Qty: 1.00

Comments: IPP Rev. A 12/08/09 New Issue DL  
DL VERIFIED BY:JLM IPP Rev C Dwg Update 13/07/09 DL verf: DD

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
D4634-145 Aft, Center Ceiling Replacement Panel Assembly		Manufactured	No	104780		100	Each	0.0000	1	1		DAS 07 13/09/16	
D4646-1 Plenum Cap Assembly		Manufactured	No			100	Each	24.0000	2	2		DAS 07 13/09/16	
				Location	103832	Loc Qty	Loc Code		1				
				ST117		24							
				<del>92968</del>		12							
				<del>95779</del>		12							
D4652-1 Air Valve, 1.16 ID Disk Type		Manufactured	No			100	Each	24.0000	2	2		DAS 07 13/09/16	
				Location		Loc Qty	Loc Code						
				ST117		12							
				93032		12			2				
				ST118		12							
				95907		12							
D4652-3 Mounting Nut		Manufactured	No			100	Each	0.0000	2	2			
D4728-049 Advisory Light, Aft		Manufactured	No	96185		100	Each	0.0000	1	1		DAS 07 13/09/16	
D4728-055 Cabin Lights #3		Manufactured	No			100	Each	1.0000	1	1		DAS 07 13/09/16	
				Location	96181	Loc Qty	Loc Code		1				
				ST120		1							
				<del>93458</del>		1							
PLT1.5M-M Tie Wrap		Purchased	No			100	Each	62.0000	8	8		DAS 07 13/09/16	
				Location		Loc Qty	Loc Code						
				ST379		62							
				124363		62			8				

NCR: Yes / No

## WORK ORDER NON-CONFORMANCE / UPDATE

DQA: \_\_\_\_\_ Date: \_\_\_\_\_

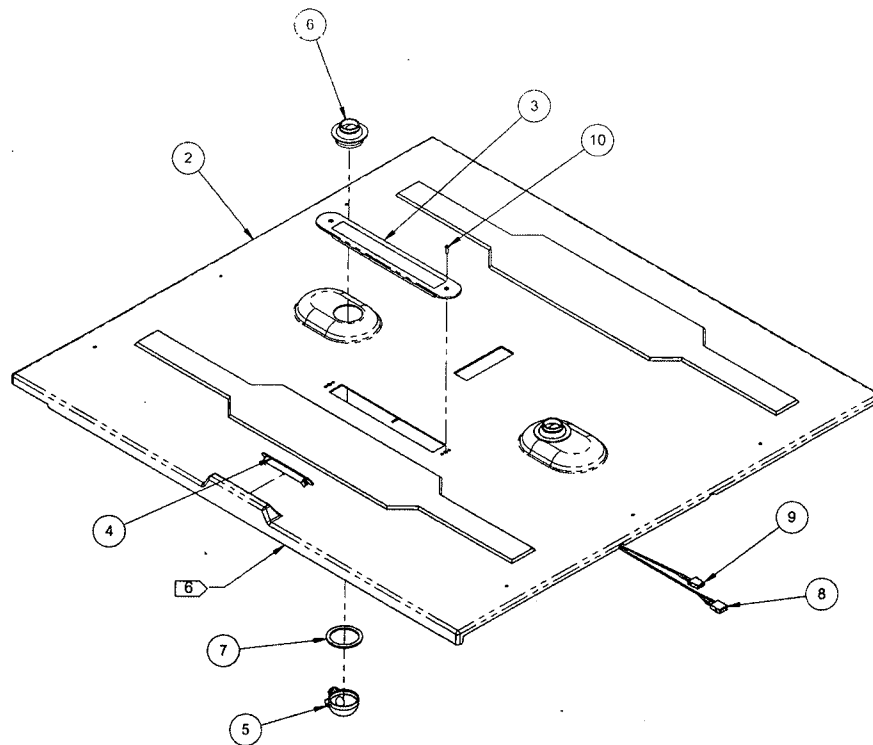
QA Closed: \_\_\_\_\_ Date: \_\_\_\_\_

Work Order: _____  Part No. _____  NCR No. _____	<b>DISPOSITION</b>  Rework <input type="checkbox"/> Scrap <input type="checkbox"/> Use-as-is <input type="checkbox"/> Work Order Update <input type="checkbox"/>	<b>AGAINST DEPARTMENT/PROCESS</b>  <table style="width: 100%;"> <tr> <td>Skid-tube <input type="checkbox"/></td> <td>Crosstube <input type="checkbox"/></td> <td>Water Jet <input type="checkbox"/></td> <td>Engineering <input type="checkbox"/></td> </tr> <tr> <td>Machining <input type="checkbox"/></td> <td>Small Fab <input type="checkbox"/></td> <td>Prod. Eng. Coord. <input type="checkbox"/></td> <td>Quality <input type="checkbox"/></td> </tr> <tr> <td>Thermoforming <input type="checkbox"/></td> <td>Finishing <input type="checkbox"/></td> <td>Rec/Store/Packaging <input type="checkbox"/></td> <td>Other <input type="checkbox"/></td> </tr> <tr> <td>Large Fab <input type="checkbox"/></td> <td>Composite <input type="checkbox"/></td> <td>Supplier <input type="checkbox"/></td> <td></td> </tr> </table>	Skid-tube <input type="checkbox"/>	Crosstube <input type="checkbox"/>	Water Jet <input type="checkbox"/>	Engineering <input type="checkbox"/>	Machining <input type="checkbox"/>	Small Fab <input type="checkbox"/>	Prod. Eng. Coord. <input type="checkbox"/>	Quality <input type="checkbox"/>	Thermoforming <input type="checkbox"/>	Finishing <input type="checkbox"/>	Rec/Store/Packaging <input type="checkbox"/>	Other <input type="checkbox"/>	Large Fab <input type="checkbox"/>	Composite <input type="checkbox"/>	Supplier <input type="checkbox"/>	
Skid-tube <input type="checkbox"/>	Crosstube <input type="checkbox"/>	Water Jet <input type="checkbox"/>	Engineering <input type="checkbox"/>															
Machining <input type="checkbox"/>	Small Fab <input type="checkbox"/>	Prod. Eng. Coord. <input type="checkbox"/>	Quality <input type="checkbox"/>															
Thermoforming <input type="checkbox"/>	Finishing <input type="checkbox"/>	Rec/Store/Packaging <input type="checkbox"/>	Other <input type="checkbox"/>															
Large Fab <input type="checkbox"/>	Composite <input type="checkbox"/>	Supplier <input type="checkbox"/>																

Root Cause	Date	Step	Qty	Description of work order update or Non-conformance	Initial Chief Eng	Action Description	Sign & Date	Verification	QC Inspector
Doc/Data <input type="checkbox"/>									
Equip/Tooling <input type="checkbox"/>									
Operator <input type="checkbox"/>									
Material <input type="checkbox"/>									
Setup <input type="checkbox"/>									
Other <input type="checkbox"/>									
Process <input type="checkbox"/>									
Supplier <input type="checkbox"/>									
Training <input type="checkbox"/>									
Unapproved <input type="checkbox"/>									

### FAULT CATEGORY

Landing Gear	General	Other
<input type="checkbox"/> Bending	<input type="checkbox"/> Bend	<input type="checkbox"/> Grain
<input type="checkbox"/> Centre Not Concentric to O/S	<input type="checkbox"/> BOM/Route	<input type="checkbox"/> Hardware
<input type="checkbox"/> Cracks	<input type="checkbox"/> Broken/Damaged	<input type="checkbox"/> Inspection Incomplete
<input type="checkbox"/> Crushed/Crimped	<input type="checkbox"/> Burrs	<input type="checkbox"/> Instructions Incomplete/Unclear
<input type="checkbox"/> Cuffs	<input type="checkbox"/> Contamination	<input type="checkbox"/> Maintenance
<input type="checkbox"/> Heat Treat	<input type="checkbox"/> Countersink	<input type="checkbox"/> Misabeled
<input type="checkbox"/> Inspection Strip in Tube	<input type="checkbox"/> Cut Too Short	<input type="checkbox"/> Misread
<input type="checkbox"/> Ripples in Bend	<input type="checkbox"/> Drill Holes	<input type="checkbox"/> Offset
<input type="checkbox"/> Torque Waves in Extrusion	<input type="checkbox"/> Drawing	<input type="checkbox"/> Out of Calibration
<input type="checkbox"/> Turning Sequence	<input type="checkbox"/> Finish	<input type="checkbox"/> Out of Sequence
<input type="checkbox"/> Wave/Twist in Tube	<input type="checkbox"/> Folio	<input type="checkbox"/> Outside Dimensions
		<input type="checkbox"/> Ovalized
		<input type="checkbox"/> Over/Under tolerance
		<input type="checkbox"/> Part Incorrect
		<input type="checkbox"/> Part Lost/Missing
		<input type="checkbox"/> Part Moved
		<input type="checkbox"/> Positioned Wrong
		<input type="checkbox"/> Power Loss/Surge
		<input type="checkbox"/> Pressure/Forced
		<input type="checkbox"/> Temperature/Cure
		<input type="checkbox"/> Weld
		<input type="checkbox"/> Wrong Stock Pulled
		<input type="checkbox"/> Other



**D4634-045 AFT. CENTER CEILING PANEL ASSY**

**NOTES:**

- 1) MATERIAL: N/A
- 2) FINISH: N/A
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
- 6) IDENTIFICATION: IDENTIFY PER QSI 044 6.4, ON SMOOTH SIDE
- 7) WEIGHT: 10.0 lbs
- 8) INSTALL D4728-049/-055 WIRE HARNESS PER QSI 048

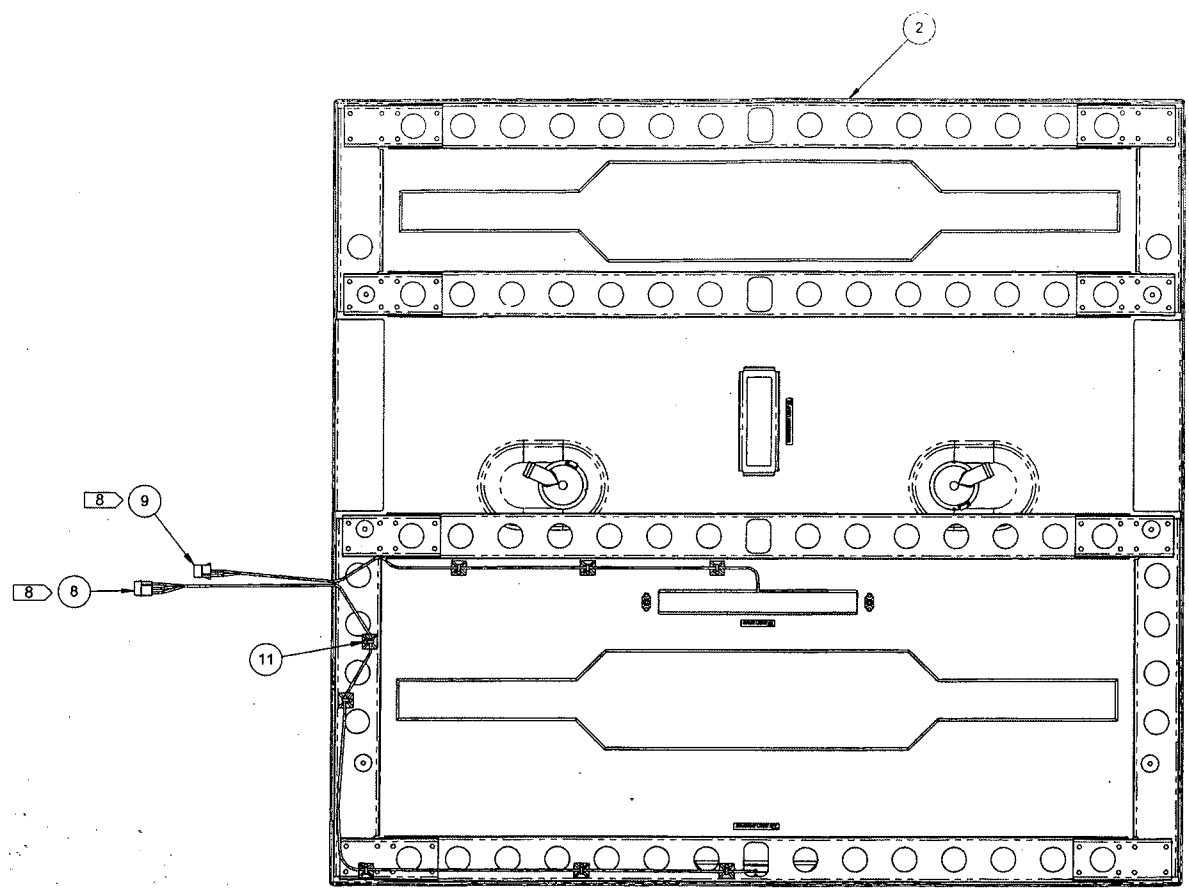
ITEM NO.	QTY.	PART NO.	DESCRIPTION
1	X	D4634-045	AFT. CENTER CEILING PANEL ASSY
2	1	D4634-145	AFT. CENTER CEILING REPLACEMENT PANEL ASSY
3	1	D4638-1 (REF)	LED LIGHT (PART OF D4728-055)
4	1	D4645-1 (REF)	NO SMOKING & FASTEN BELT LIGHT (PART OF D4728-049)
5	2	D4646-1	PLENUM CAP ASSEMBLY
6	2	D4652-1	AIR VALVE
7	2	D4652-3	MOUNTING NUT
8	1	D4728-049	ADVISORY LIGHT (AFT) HARNESS ASSEMBLY
9	1	D4728-055	CABIN LIGHT #3 ASSEMBLY
10	2	N/A (REF)	SCREW (PART OF D4728-055)
11	8	PLT1.5M-M	TIE-WRAP (OR PLT1.5M-C)

DART  
 ENGINEERING  
 CONTROLLED COPY  
 NOT TO AMENDMENT  
 NOTICE  
 WORK ORDER  
 105073\_MLW  
 13-07-24

**RELEASED**  
 2013-07-15

DESIGN	RF	<b>DART AEROSPACE LTD</b> HAWKESBURY, ONTARIO, CANADA	
DRAWN	RF		
CHECKED	BC	DRAWING NO.	REV. C
MFG. APPR.	BC	D4634	SHEET 5 OF 17
APPROVED	BC	TITLE	SCALE
DE APPR.	BC	CENTER CEILING PANELS	NTS
DATE	13.06.18	<small>           COPYRIGHT © 2012 BY DART AEROSPACE LTD            THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS            NOT TO BE USED FOR ANY PURPOSE OR COMMUNICATED TO ANY OTHER PERSON WITHOUT            WRITTEN PERMISSION FROM DART AEROSPACE LTD         </small>	

105073



**D4634-045 AFT, CENTER CEILING PANEL ASSY**  
AUXILIARY VIEW

**RELEASED**  
2013-07-15

DESIGN	RF	<b>DART AEROSPACE LTD</b> HAWKESBURY, ONTARIO, CANADA	
DRAWN	RF		
CHECKED	DC	DRAWING NO.	REV. C
MFG. APPR.	DC	<b>D4634</b>	SHEET 6 OF 17
APPROVED	DC	TITLE	SCALE
DE APPR.	DC	<b>CENTER CEILING PANELS</b>	NTS
DATE	13.06.18	<small>COPYRIGHT © 2012 BY DART AEROSPACE LTD THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD.</small>	